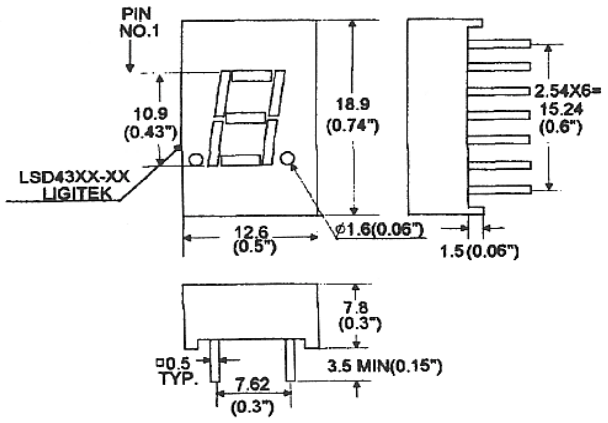
Jameco Part number 81496

## *LIGITEK*

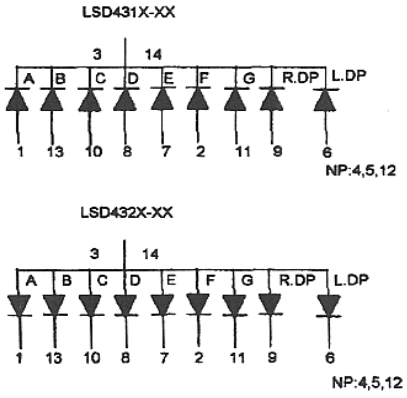
**SINGLE DIGIT LED DISPLAY (0.43inch)** **LSD431X/2X** *series* *Page 1/2*

*PACKAGE DIMENSION*




NOTE: All Dimension Are In Millimeters And (Inch)
Tolerance Is ±0.25(0.01") Unless Otherwise Noted

*INTERNAL CIRCUIT DIAGRAM*




- **Connection To Electrical Schematic**

*Electrical Connection*

| PIN NO. | LSD431X-XX | PIN NO. | LSD432X-XX |
|---|---|---|---|
| 1 | Anode A | 1 | Cathode A |
| 2 | Anode F | 2 | Cathode F |
| 3 | Common Cathode | 3 | Common Anode |
| 4 | NP | 4 | NP |
| 5 | NP | 5 | NP |
| 6 | Anode L.DP | 6 | Cathode L.DP |
| 7 | Anode E | 7 | Cathode E |
| 8 | Anode D | 8 | Cathode D |
| 9 | Anode R.DP | 9 | Cathode R.DP |
| 10 | Anode C | 10 | Cathode C |
| 11 | Anode G | 11 | Cathode G |
| 12 | NP | 12 | NP |
| 13 | Anode B | 13 | Cathode B |
| 14 | Common Cathode | 14 | Common Anode |

文件編號：QW0905-S431/2X-XX 版本：A 生效日期：May . 10 . 1996

Jameco Part number 81496



## • Part Selection And Application Information (Ratings At 25°C Ambient)

| PART NO | CHIP | | common cathode or anode | λP (nm) | Δλ (nm) | Electrical | | | | | IV-M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Vf(v) | | | Iv(mcd) | | |
| | Material | Emitted | | | | Min | Typ. | Max | Min | Typ. | |
| LSD4315-XX | GaAlAs | Red | Common Cathode | 660 | 20 | 1.5 | 1.7 | 2.4 | 0.5 | 0.9 | 2:1 |
| LSD4311-XX | GaP | Red | | 697 | 90 | 1.7 | 2.1 | 2.8 | 1.4 | 2.4 | 2:1 |
| LSD4312-XX | GaP | Green | | 565 | 30 | 1.7 | 2.1 | 2.8 | 1.1 | 1.8 | 2:1 |
| LSD4313-XX | GaAsP/GaP | Yellow | | 585 | 35 | 1.7 | 2.0 | 2.8 | 1.4 | 2.4 | 2:1 |
| LSD4314-XX | GaAsP/GaP | Orange | | 635 | 45 | 1.7 | 2.0 | 2.8 | 1.9 | 3.1 | 2:1 |
| LSD4325-XX | GaAlAs | Red | Common Anode | 660 | 20 | 1.5 | 1.7 | 2.4 | 0.5 | 0.9 | 2:1 |
| LSD4321-XX | GaP | Red | | 697 | 90 | 1.7 | 2.1 | 2.8 | 1.4 | 2.4 | 2:1 |
| LSD4322-XX | GaP | Green | | 565 | 30 | 1.7 | 2.1 | 2.8 | 1.1 | 1.8 | 2:1 |
| LSD4323-XX | GaAsP/GaP | Yellow | | 585 | 35 | 1.7 | 2.0 | 2.8 | 1.4 | 2.4 | 2:1 |
| LSD4324-XX | GaAsP/GaP | Orange | | 635 | 45 | 1.7 | 2.0 | 2.8 | 1.9 | 3.1 | 2:1 |

## • Absolute Maximum Rating (Ta=25°C)

| Parameter | Red | | | Green | | Yellow | | | Orange | | Unit | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Forward Current Per Chip | SR | | H | | G | | Y | | | E | | |
| | 40 | | 15 | | 30 | | 20 | | | 30 | mA | |
| Peak Current Per Chip (Duty 1/10, 0.1MS Pulse Width) | 200 | | 60 | | 120 | | 80 | | | 120 | mA | |
| Power Dissipation Per Chip | 110 | | 45 | 100 | | 85 | | | 100 | | mW | |
| Derating Linear From 25°C Per Chip | 0.45 | | 0.25 | 0.45 | | 0.45 | | | 0.45 | | mA/ °C | |
| Reverse Current Per Any Chip | 10 | | | 10 | | 10 | | | 10 | | μA | |
| Operating Temperature | -40°C TO +85°C | | | | | | | | | | | |
| Storage Temperature | -40°C TO +100°C | | | | | | | | | | | |

Solder Temperature 1/16 Inch Below Seating Plane For 3 Seconds At 260°C

## • Test Condition For Each Parameter

| Parameter | Symbol | Unit | Test Condition |
|---|---|---|---|
| Forward Voltage Per Chip | Vf | volt | If=20mA |
| Luminous Intensity Per Chip | Iv | mcd | If=10mA |
| Peak Emission Wavelength | λP | nm | If=20mA |
| Spectral Line Half-Width | Δλ | nm | If=20mA |
| Reverse Current Any Chip | Ir | μA | Vr=5V |
| Luminous Intensity Matching Ratio | IV-M | | |